

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 09-260122

(43)Date of publication of application : 03.10.1997

(51)Int.Cl. H01F 1/08
C22C 38/00
H01F 1/053

(21)Application number : 08-090400 (71)Applicant : HITACHI METALS LTD

(22)Date of filing : 19.03.1996 (72)Inventor : UCHIDA KIMIO
TAKAHASHI
MASAHIRO
TANIGUCHI
FUMITAKE

(54) SINTERED PERMANENT MAGNET

(57)Abstract:

PROBLEM TO BE SOLVED: To improve the corrosion resistance by using an R-Fe-B based sintered permanent magnet having a specified main phase crystal grain size or less.

SOLUTION: A sintered permanent magnet has a compsn. R (one or more rare earth elements, including Y) 27.0-31.0wt.%, B 0.52.0wt.%, N 0.02-0.15wt.%, O 0.25wt.% or less (not 0wt.%), C 0.15wt.% (not 0wt.%) and Fe. The area sum of the main phase crystal grains of 10 μ m or less is 80% of the total area of the magnet main phase or more and the area sum of those grains of 13 μ m or more is 10% or less. Part of Fe of this magnet may be substituted by at least one of Nb 0.1-2.0wt.%, Al 0.02-2.0wt.%, Co 0.3-5.0wt.%, Ga 0.01-0.5wt.%, and Cu 0.01-1.0wt.%. Thus it is possible to obtain an R-Fe-B based sintered permanent magnet superior in corrosion resistance, without deteriorating the magnetic characteristics.

LEGAL STATUS

[Date of request for examination] 29.05.1997

[Date of sending the examiner's

BEST AVAILABLE COPY

decision of rejection]

[Kind of final disposal of application
other than the examiner's decision
of rejection or application
converted registration]

[Date of final disposal for
application]

[Patent number] 2966342

[Date of registration] 13.08.1999

[Number of appeal against
examiner's decision of rejection]

[Date of requesting appeal against
examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

BEST AVAILABLE COPY